

Integrating Community Health Workers on Quality Improvement Teams: Lessons from the Field

Community health workers (CHWs) need to be involved in healthcare quality improvement (QI) teams and projects - especially when it comes to social health integration. Engaging CHWs meaningfully on QI teams ensures healthcare systems are designed by those affected by those systems. Equipping CHWs with the tools to collect and analyze data, and design and track improvements, ensures stronger integration onto care teams, better job satisfaction, and most importantly, effective systems that best serve patients.

QI is “The combined and unceasing efforts of everyone - healthcare professionals, patients and their families, researchers, payers, planners and educators - to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development and learning.” In spite of [this inclusive definition](#), traditional healthcare QI teams have included [mainly clinical staff](#), and less commonly involve the larger care team and the patient perspective (although an increasing number are [including patients](#)). Current care delivery reform efforts in particular stand to gain from CHWs’ insights into patients’ whole person needs and their experiences engaging with healthcare and social systems.

CHWs should be involved in every aspect of the model for improvement:

- [Definition of the problem \(aim setting\)](#)
- Assessment and diagnosis of process challenges ([process mapping](#), [5 why's](#))
- Defining measures and owning measurement/being part of data analysis
- Design of improvements - not just execution of tests or new processes
- Defining measures and owning measurement/being part of data analysis

Involving CHWs in QI efforts meaningfully means distributing power more equitably on care teams, and trusting that their unique contributions, knowledge, experience and design ideas can improve efficiency, health outcomes, patient experience, increase health equity and increase staff retention. Because CHWs walk alongside patients, they help organizations identify more upstream solutions to service delivery, and design and improve new systems to address patients’ essential resource needs in and outside of the clinic.



CHWs are frontline public health workers who are trusted members of and/or have an unusually close understanding of the community served. This trusting relationship enables CHWs to serve as a liason/link/intermediary between health/social services and the community to facilitate access to services and **improve the quality and cultural competence of service delivery.**

CHWs Lead Quality Improvement to Better Address Health-Related Social Needs

CHWs have always developed unique workflows and practices to address patients' social determinants of health (SDoH). Below is a sample of the types of QI projects that have been led or co-led by CHWs, as observed during Health Leads' learning collaboratives:

	Changes Led by CHWs	Impact/Improvement
Screening and assessment	Adjust housing-related screening questions to better align with available resources.	Improved ability for CHWs to manage capacity. Improved ability to manage patient expectations and match to available resources.
	Ask clients about existing social supports and goals at intake to increase strengths-based focus.	Improved patient experience and activation.
	Tested the use of scaling to determine how likely patients are to connect with resources. i.e. Patients can rate their readiness or desire to act on a referral given by a CHW.	Improved communication, prioritization and action planning between CHWs and clients. Focuses navigation on patient preferences and strengths.
Resource access	Revisions to NYC WIC policy/systems based on Process Mapping and interviews conducted by CHWs around WIC access.	Improved percentage of eligible patients receiving WIC.
	Improve system for processing and navigating LIHEAP applications.	Improved success rate of patients receiving LIHEAP .
Care team functioning	Align care team/clinic staff on CHW scope of service. Create script for providers to describe CHW scope of practice.	Improved patient experience and staff experience through aligned expectations of what CHWs can provide.
	Initiate cross-site CHW conference calls- case conference meetings.	Decreased staff isolation and burnout. Improved CHW effectiveness and patient care.
Measurement of patient experience and outcomes	Create scheduling system for SDoH-related CHW appointments in EHR.	Improved care team communication and patient experience (shorter wait times for appointment with CHW).
	Create and conduct patient experience surveys.	Improved SDoH programs based on patient feedback, e.g. improved warm hand-off protocol.
	Test Patient Reported Outcome Measures (PROMs).	Guided effective implementation of new PROMs, so patients answer accurately. Clarified differences in utility of measures between pediatric and adult populations.

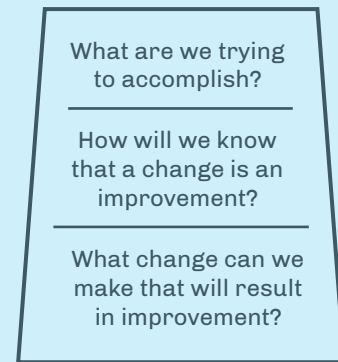
How to use this paper:

This paper includes examples of how CHWs have used four specific QI methods and tools (Setting Aims, Process Mapping, Plan-Do-Study-Act (PDSA) Cycles, and Measurement for Improvement) to redesign or improve the way their teams connect patients with resources and services they need to be healthy - resources like fuel assistance, legal support, or healthy food. Each section will:

- Briefly describe the tool or method; Discuss **why** CHWs should be involved in this part of the QI process;
- Offer one or two examples of CHW-led QI practices to improve SDoH integration;
- Share links to more how-to guidance on each of the tools and methods discussed.

We encourage readers, especially CHWs and their colleagues and allies, to use this paper for advocacy as well as training.

Model for Improvement



Setting an Aim: Identifying - and Specifying - Your North Star

CHWs should be involved in every aspect of QI work, starting from the beginning, with defining the problem and setting aims. Setting aims creates an ongoing focus for team meetings and sets the direction for where to focus improvement efforts. Aims clarify which processes to map and which measures to track. Setting aims also can push a team to think about who will need to be involved in not just the improvement work, but in the data collection (eg. a clinic's IT team).

Involving CHWs in aim-setting for improving SDoH integration is critical for a number of reasons. CHWs have a unique understanding of patients' behavior, social experience, and relationships, as well as the social service systems within their communities, which allows CHWs to see existing gaps firsthand. CHWs also often have the unique position of engaging with almost every staff and service provider, from front desk staff to interpreters to specialists, giving them a holistic view of problems, and insight into the stakeholders implicated in a QI project. Encouraging and training CHWs to utilize the information they have to promote systemic improvements will enable them to expand and apply their skills in new, important ways. Below is an example of an aim set by a CHW team involved in a Boston-based collaborative.



Strong Completed Aim:

By December 2018, at our health center, we will:

1. Screen 50% of new adult medicine patients (NewP30 visit type) for health-related social needs, have 50% enrolled in follow up, and of these, connect 80% to resources.
2. Use our case management software to capture 75% of patient goals and patient navigation steps for patients enrolled with pediatric family partners.
3. Increase pediatric patient engagement through a series of projects aimed to standardize time to first contact (3 business days), decrease disconnection rate to 15%, and increase the proportion of successful, equipped, and rapid resource referral (RRR) connections to 80%.

This aim is strong because it has **specific targets** - **dates and percentages**, so it's clear what will be measured. It is specific about the visit types that will be counted for screening. The CHWs involved in setting these aims are directly involved in the screening and referral processes at this clinic, and are also the primary data collectors on some of the measures being used. Their involvement ensured the team would set relevant and ambitious - but not impossible - goals.



A Few Tips:

- Aim-setting can be effective at aligning stakeholders. When setting aims, allow for time to share your aims with two or three stakeholder groups for feedback.
- Consider including patients and community partners (eg. the local community action agency, or food bank) in the aim-setting process.
- 3- or 4-month aims are sometimes easier to manage than 1 year aims, especially when turnover among front-line staff is high.



Tools for setting an effective aim:

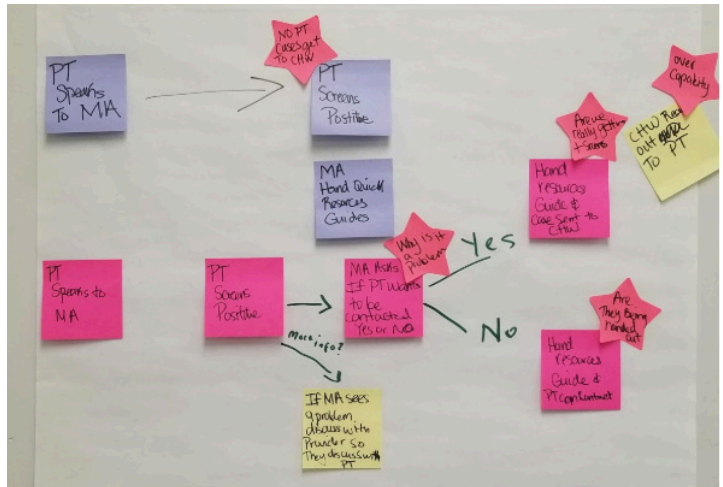
[Institute for Healthcare Improvement's Science of Improvement: Tips for Setting Aims](#)



Process Mapping: Diagnosing the Problems, Finding Opportunities

Process mapping is a useful tool that can be applied before or after aim-setting to help teams identify opportunities for improvement, for example: the places where processes get stuck or where there is confusion. It can also help different members of the care team and patients align on what is actually happening - and often reveals that team members have different impressions of how things work. Process mapping can be used to analyze processes that happen in the clinic or processes that the team is a part of that happen in the clinic or go beyond the clinic walls, like where CHWs are supporting patients trying to access services at a community-based organization. (In this latter case, including a staff person from that CBO on the QI team would be especially effective, expanding the possibilities for testing improvements.)

[CHWs have a unique contribution to make to process mapping.](#) One of the most important roles of CHWs is assisting their clients with navigating long and complicated processes - like securing lower cost durable medical equipment, scheduling a specialist appointment, or applying for disability. Every day, CHWs help overwhelmed patients break down each process into manageable steps. CHWs become familiar with and provide extra support around “pain points” in a process - places where no interpreters are available, an error on an application might set back a client several months, or a missed appointment can’t be rescheduled. As CHWs are already experienced in analyzing and helping patients to navigate the complexity of social services and medical care, they are important voices and contributors to any process mapping activity.



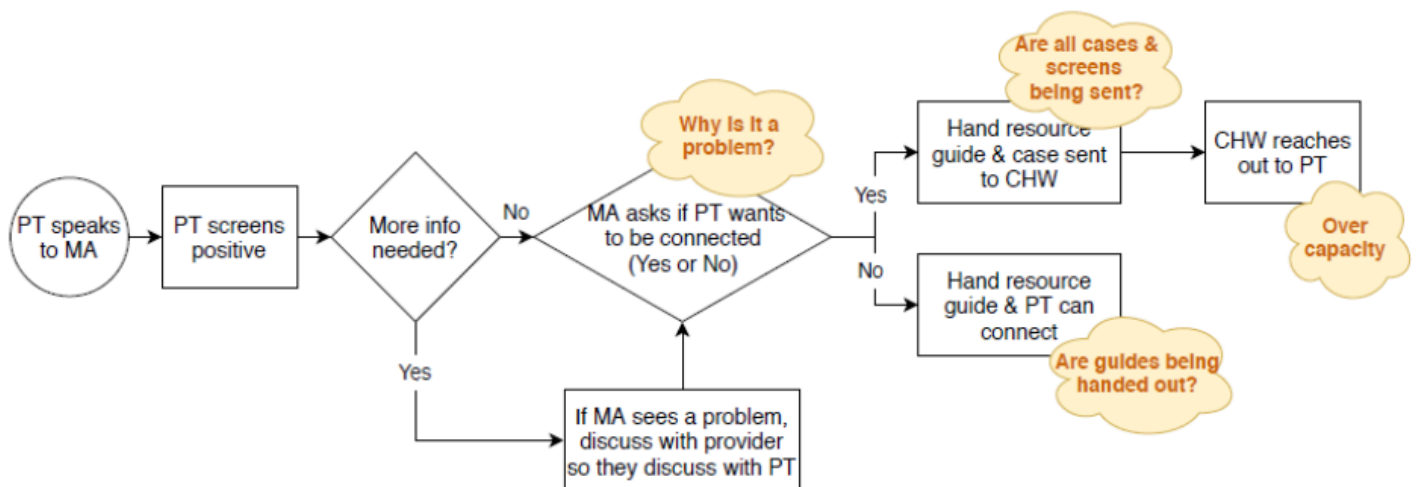
A CHW-led team from a Massachusetts-based health center mapped the SDOH screening workflow in one of their clinics. The stars indicate 1) where they perceived the workflow was breaking down, or 2) where they had questions for specific nurses and providers who were not present during the activity to clarify an issue with the step. Below, a re-creation of this process map was made using Visio to show the text.



Two tools for process mapping:

1. [Inclusive Process Mapping with Patients and Clients](#)
2. [Process Mapping Flowcharts](#)

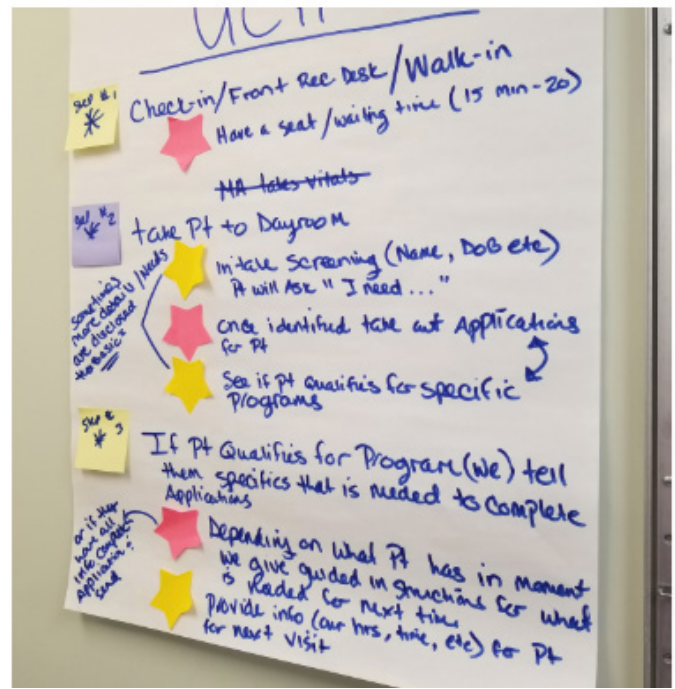
Process mapping is a low tech activity using large paper, markers, and post-its to enable multiple people to work together and move things around. We have recreated the process map pictured above so you can see the steps mapped out more clearly.



The 5 Whys

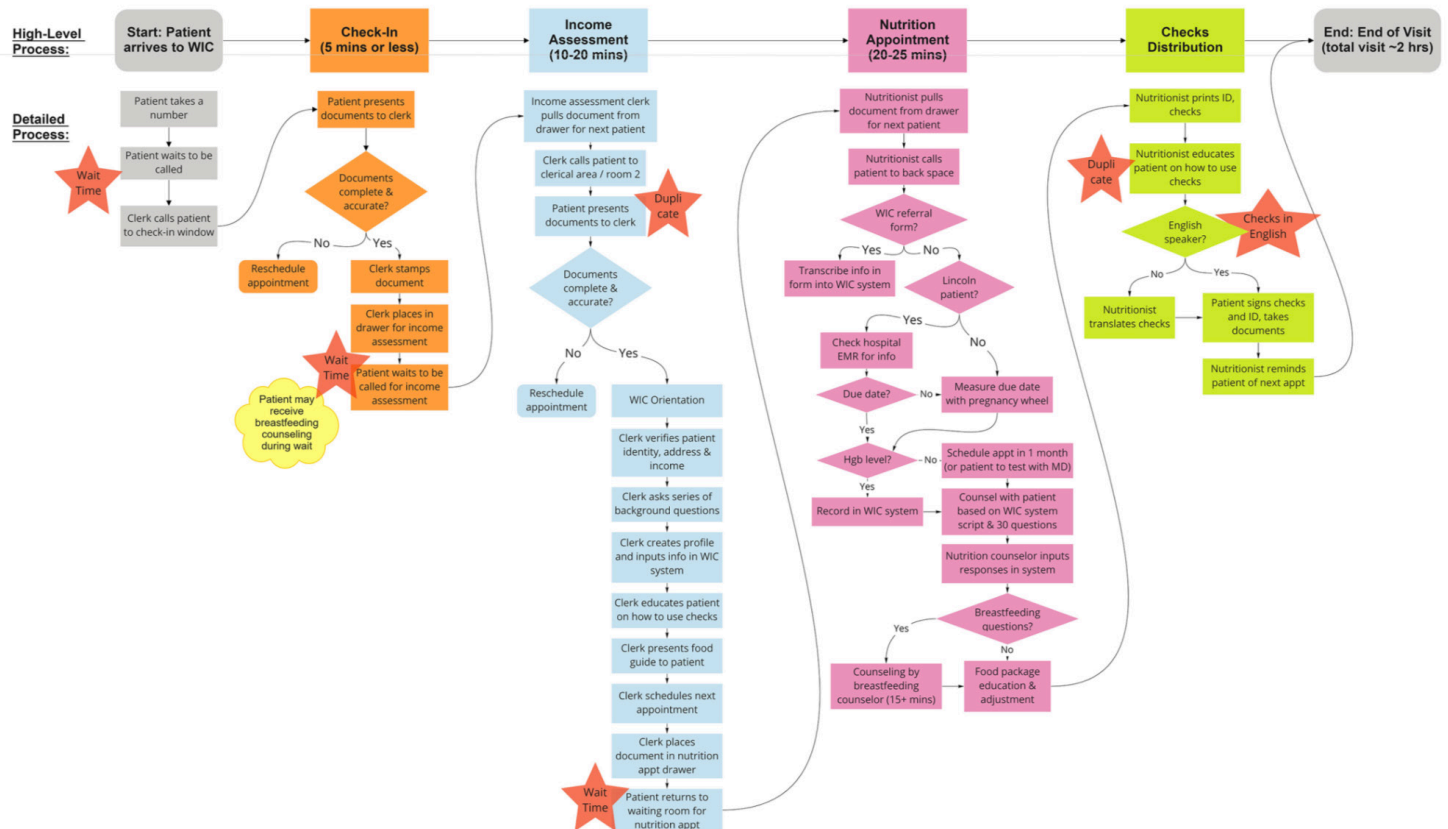
You might also try the **5 Whys** — finding the root cause of a problem. One of the reasons it's so helpful to have multiple perspectives (nurses, CHWs, patients) on a QI team is that they each provide insights into the "why" that others may not see.

While CHWs may have a privileged position of coaching patients through many steps of a process, and often share experiences and identities with their patients, they are still staff of an agency or a clinic, and like other staff, can't see every process purely from a patient's perspective. We strongly encourage CHWs and QI teams to always include patients in process mapping.



In this process map, a team of BH staff and CHWs are deciphering a process for when patients enter the clinic to see a CHW for same-day assistance but don't have a medical appointment. They used different color stickies to indicate different roles and pathways.

Another excellent example of how process mapping can be used by CHWs, clinic staff, patients, and community advocates can be found in [this case study from New York City](#), where a multidisciplinary team mapped the referral pathway from a primary care clinic to a WIC office a few blocks away. The team was able to discover a number of "drop off points" or system level barriers in the process between getting a referral from a nurse in the clinic to getting enrolled and receiving WIC.



This image is a re-creation of the process map created by CHWs, patients, and other stakeholders in New York in November of 2018. Click [here](#) to learn what they discovered.

Plan, Do, Study, Act Cycles: Test Before You Invest

Once teams have a hypothesis about what needs to be fixed, it's time to develop ideas of how to fix it to see the improvement they want. In busy clinics, with limited resources, it is helpful to test out changes on a small scale before implementing them.



CHWs can test change ideas with one provider, or a handful of patients, to work out the kinks before their team invests in training all staff on a new system or buying new materials. CHWs are already skilled at finding solutions with their patients to barriers in social and medical systems and have experience addressing these barriers on an individual and systemic level as advocates, community leaders, and organizers. CHWs should be involved in developing ideas to test, and in designing and testing the right-sized [Plan, Do, Study, Act cycles](#). Below are two example PDSAs designed and ran by CHWs in a community health center in Boston, MA.

Example: Managing expectations and screening volume

The Challenge: A busy community health center started screening their patients for essential resource needs and soon, their two CHWs couldn't keep up with the number of patients and families requiring follow up. They identified two potential areas for improvement: 1) wording questions to better target needs the team could address, and 2) the way they set up expectations for families when they first outreached to folks after a positive screen. Below are two PDSAs the teams conducted to test improvements to their screening and triage process.

PDSA 1: Triage Script

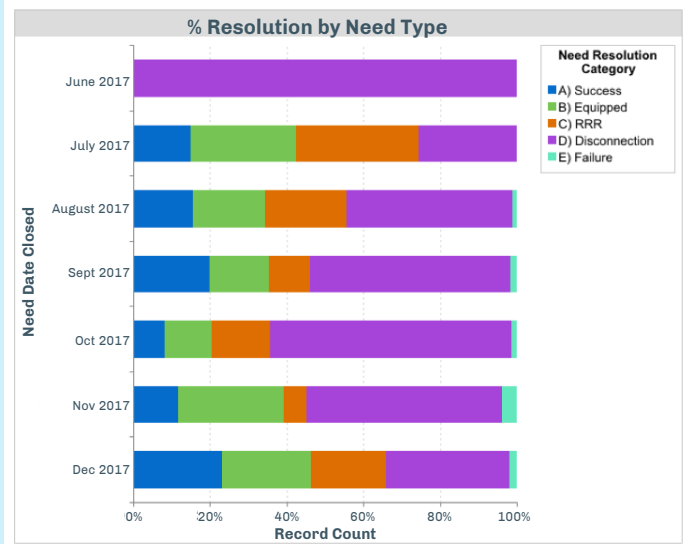
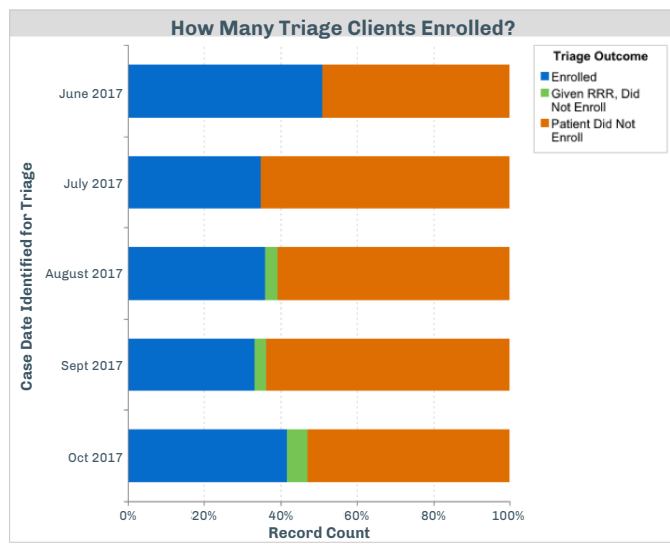
Goal: To ensure staff is able to address needs that are identified in an effective and timely manner.

What was tested: For one week, staff tested a script created by a CHW at a sister health center, that narrates two options for clients: follow-up calls, or a one-time referral (RRR). Clients were asked to choose which option they prefer.

Predictions: This will reduce the number of clients lost to follow-up, and will ensure staff is able to address needs that are identified in a timely manner.

Learning and outcomes: Script was effective in clarifying next steps for patients and focusing intake conversations. For the first time, some patients selected one-time referrals, instead of follow-up. Disconnection rate (lost to follow up) did not go down.

Actions: Adopt script permanently.



PDSA 2: Change Screening Questions

Goal: To ensure staff is able to address needs that are identified in an effective and timely manner.

What was tested: The housing question on the screen was revised. Instead of asking about housing insecurity broadly, the question focused on imminent eviction or homelessness, which the health center had capacity and community partnerships to address. The revised housing question was tested at one clinic location for one month.

Predictions: Positive responses (yes) on screens for housing question will decrease by 50%. Issues that patients will present to navigators will be those they can address, eg. emergency shelter.

Learning and outcomes: Positive responses to the housing question were reduced by over 50%, and 100% of the positive responses were issues the navigators were able to address. The change also led to an overall decrease in the volume of positive screens, and allowed for more effective resources to be shared with clients.

Actions: Change screen permanently.

Measurement for Improvement: How To Know If a Change is Working

In QI, data and measurement is critical in studying and learning about improvement efforts and for accelerating positive change. By owning the development, collection, and analysis of the data, CHWs are able to inform their work and/or gain buy-in for proposed changes or improvements. In addition health systems that [intentionally involve CHWs in data analysis and presentation](#) have been able to elevate the CHW role to leadership, which has led to increased CHW visibility with, and support from, health system leadership. Below are some example measures CHWs have been involved in selecting, tracking and analyzing, as well as guidance around measurement for SDoH with CHWs.



Plot Data Over Time to Track Progress Against Aims

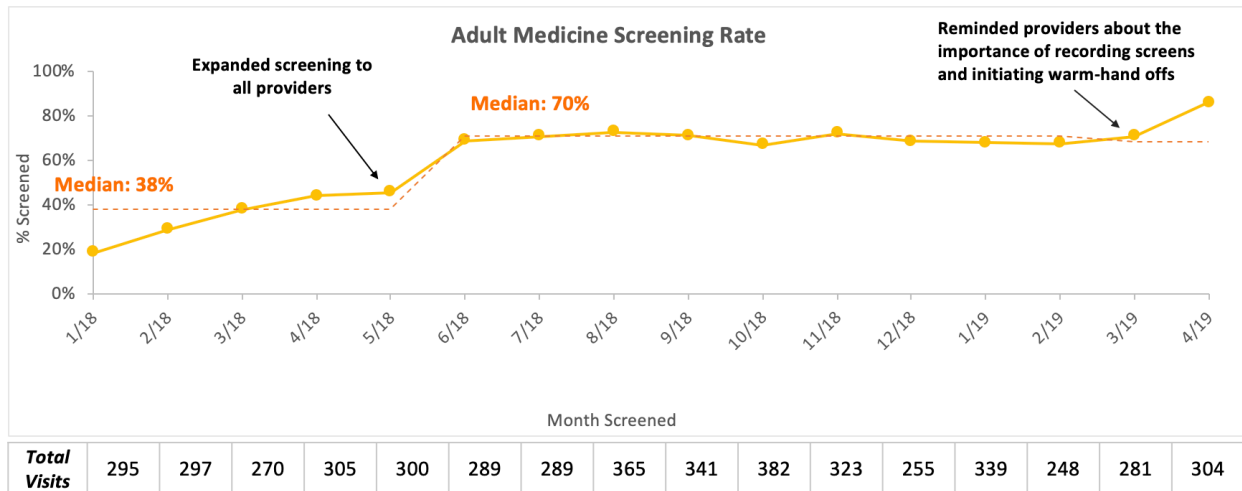
Below are two example run charts from health centers where CHWs were leading improvements to screening and referrals. Annotations were input by CHWs, providing context for the changing data over time.

Below shows the screening rate in a clinic where CHWs designed and initiated SDOH screening. They first tested it with one provider, then two providers, then expanded to all providers.

Adult Medicine: SDOH Screening Rate

Aim: December 2018, we will screen 50% of new Adult Medicine patients (NewP30 visit type), have 50% enrolled in follow up, and of these, connect 80% to resources

Aim: By April 2019, Adult Medicine will increase the % of patients screened from 70% to 80%

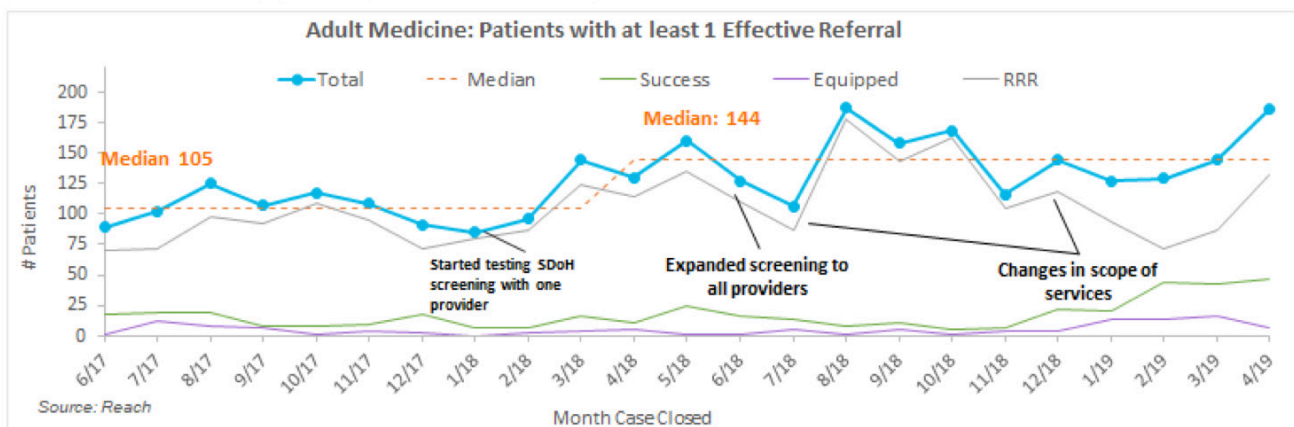


Source: Direct from Member

The same clinic tracked the number of patients receiving support (referrals to community resources, and navigation of services) for needs identified during screening. As the annotations indicate, during busy times and times of low capacity, CHWs adjusted their scope of practice to include Rapid Resource Referrals (RRRs), otherwise known as one-time referrals with no follow-up. When there was more capacity, CHWs provided more follow-up to patients.

Adult Medicine: Patients with at least 1 Effective Referral

AIM: By April 2019, increase the number of patients who had received at least one effective referral.



In the above graph, the bright blue line describes effective referrals- the cumulative number of patients who received either a one-time tailored referral, as well as those who received referrals and follow up. Success indicates patients who received follow up and confirmed they were able to access a resource. Equipped is when a patient received follow up and confirmed that while they may not have a resource yet, they were either on a waitlist, or otherwise felt "equipped" to proceed without follow up from a navigator.

No Stories Without Data, and No Data Without Stories

CHW work is inherently relational, not transactional like so much in the medical industry. What's more, barriers to accessing resources (food, housing, behavioral health support, affordable medications) are shaped by a changing policy landscape, political change, and community organizing, all of which CHWs may be attuned to in terms of their local impacts. When reviewing and interpreting data, emphasizing the principle of “No stories without data, and no data without stories” is key to measurement for improvement in general, and especially when working with CHWs. CHWs are essential in analyzing and annotating run charts, for example, offering their unique window into patient experience and community context, as well as observations of the clinical workflow from their vantage point, or changes they have tested.

For example, CHWs have added context around community level trauma that may impact patient adherence to care, or upticks in behavioral health referrals. Conversely, CHWs' qualitative experience and patient stories can be bolstered by data when communicating with funders, policy makers, clinic or hospital administrators, and providers.

CHWs Should be Involved in Measure-Selection

As data collectors and documenters, CHWs have insight into which SDoH measures are more feasible to collect. As those closely observing patient experience, CHWs have a sense of which measures more accurately represent patient outcomes and patient experience. They should be involved in the selection of relevant measures to use for improvement evaluation. For example, [in a national collaborative facilitated by Health Leads](#), a group of CHWs tested a set of patient-reported experience and outcome measures with their patients and then guided the collaborative on which measures to keep and how and when to administer them to elicit honest responses from patients and create a positive patient experience.



People are not numbers

When one CHW from Boston was talking with a patient who had been referred to her from the provider for a food pantry referral, she sensed something was wrong. When she asked some deeper questions, she discovered that her patient was experiencing domestic violence. She ended up spending hours with her patient hearing the story, discussing options, resources, and a safety plan. Her roster for the day would show only two or three total clients - which doesn't look like “productivity” to her department head. But her work with this one family made a huge difference that will have far reaching effects for their family's health and well-being.



Integrating CHWs Meaningfully into QI Efforts Results in Better Care

CHWs' unique perspectives about patient care and patients' realities give them a critical viewpoint to contribute to QI activities. Equipping CHWs with QI tools and practices, and involving CHWs meaningfully on QI teams - especially those tasked with practice transformation and integration of social health - will lead to better ideas and more effective improvement work. It can also lead to better integration of CHWs on care teams and an increase in CHW job satisfaction and retention. Meaningful involvement of CHWs is a shift from a top-down QI approach to one that is inclusive and builds on the strengths and talents of all staff for success - one that requires humility and openness and collaboration. But when done well, integrating CHWs into every aspect of the model for improvement will improve every QI initiative, and ultimately, the health and well-being of patients.

ABOUT HEALTH LEADS

Health Leads is a national non-profit organization working toward a vision of health, well-being and dignity for every person in every community. For over two decades, we've worked closely with hospitals and clinics to connect people to essentials like food, housing and transportation alongside medical care.

Today, we're partnering with local organizations and communities to address systemic causes of inequity and disease — removing the barriers that keep people from identifying, accessing and choosing the resources everyone needs to be healthy.

For more information visit www.healthleadsusa.org, or email info@healthleadsusa.org.

ACKNOWLEDGEMENTS

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Appendix: Evaluating QI Knowledge and Skills: I Do, We Do, You Do, You Teach

Health Leads uses a confidence scale (see below) to gauge the uptake of QI skills throughout our collaboratives. The highest level of skill confidence is “I could teach ____ to my colleagues.” In the context of high turnover for CHWs, QI initiatives should do well to build in a structure for CHWs to teach new staff members as they join, to solidify this new knowledge.

QI Skills Assessment

Please circle the choice that applies to you in the questions below

1. Writing an Aim Statement
 - a. I have never heard of this
 - b. I have heard of this
 - c. I have tried doing or using this
 - d. I feel confident doing or using this
 - e. I could teach or train one of my coworkers to do this
2. Measurement for Improvement
 - a. I have never heard of this
 - b. I have heard of this
 - c. I have tried doing or using this
 - d. I feel confident doing or using this
 - e. I could teach or train one of my coworkers to do this
3. Engaging Senior Leaders
 - a. I have never heard of this
 - b. I have heard of this
 - c. I have tried doing or using this
 - d. I feel confident doing or using this
 - e. I could teach or train one of my coworkers to do this
4. Plan-Do-Study-Act (PDSA) Cycle Design
 - a. I have never heard of this
 - b. I have heard of this
 - c. I have tried doing or using this
 - d. I feel confident doing or using this
 - e. I could teach or train one of my coworkers to do this
5. Process Mapping
 - a. I have never heard of this
 - b. I have heard of this
 - c. I have tried doing or using this
 - d. I feel confident doing or using this
 - e. I could teach or train one of my coworkers to do this
6. Annotating and talking about a Run Chart
 - a. I have never heard of this
 - b. I have heard of this
 - c. I have tried doing or using this
 - d. I feel confident doing or using this
 - e. I could teach or train one of my coworkers to do this